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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/691,168

10/22/2003

Jeffrey J. Folkins

D/A3078

6509

37211 7590 07/17/2007  
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EXAMINER

QIN, YIXING

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

07/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/691,168

Applicant(s)

FOLKINS, JEFFREY J.

Examiner

Yixing Qin

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/29/04, 5/17/05, 4/20/06.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (U.S. Patent No. 6,604,804).

Regarding claim 1, Asakawa discloses a method for minimizing the Inter-Document Zone (IDZ) in multi-pass printing system architectures with print engines employing asynchronous paper delivery; and providing control over paper feed and imaging times comprising:

a) receiving input electronic data of an image intended to be printed; (Fig. 5, items 160-164)

b) inspecting said data to determine both the lead edge (L.E.) and the trail edge (T.E.) blank borders of said image; (c4, lines 53-55, c8, lines 22-29 – the Asakawa reference discloses that the gap G can include margins, which is equivalent to blank borders) and

Asakawa does not explicitly disclose “c) on a page by page basis determining whether said blank borders exceed a minimum design distance and adjust imaging and paper delivery timing accordingly to increase subsequent printing speed.”

However, Asakawa discloses in c8, lines 1-29 the measurement of distances Pd, G and R. While does not explicitly disclose that the blank borders exceed a minimum design distance, the calculation of such information is possible since the Asakawa reference discloses the use of the swatch distance to be the sum of the distances Pd, G and R. Also note in column 7, lines 38-51 where the Asakawa invention uses knowledge of the gap size in order to facilitate printing. For the sake of argument, the gap distance, G, has to inherently be above an arbitrary minimum distance in order for it to be identified as a gap according to the Asakawa invention – see column 5, lines 20-44.

Column 8, lines 30-37 discloses the pushing back of data in order to compensate for the blank areas, which is a form of image adjustment.

Asakawa also discloses in column 1, lines 23-47, especially lines 43-47, that media can be advanced faster if there is white space. The advancement of data at a faster rate is an adjustment to the paper delivery timing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have adjusted various settings in order to improve printing.

The motivation would have been to reduce the time needed to print if adjustments can be made to skip white or blank areas on a page.

Therefore, it would have been obvious to improve to obtain the invention as specified.

Regarding claim 2, Asakawa discloses the method of claim 1 where when the L.E. blank borders exceed the minimum design distance the images corresponding to that page are printed sooner than nominally. (column 4, lines 36-44, the leading edge of the next page indicates a gap. When the print head's swath expands onto the next page, the images on that next page are printed faster)

Regarding claim 3, Asakawa discloses the method of claim 1 where the T.E. blank borders exceed the minimum design distance the image corresponding to the subsequent document are printed sooner than nominally. (column 4, lines 36-44, the leading edge of the next page indicates a gap. When the print head's swath expands onto the next page, the images on that next page are printed faster. The next page is the subsequent document)

Regarding claim 4, Asakawa discloses the method of claim 1 where the T.E. blank borders exceed the minimum design distance any transition events timing is performed sooner than nominally. (column 1, lines 23-47, especially lines 43-47, that media can be advanced faster if there is white space. The advancement of data at a faster rate is an adjustment to the paper delivery timing – i.e. the transition event timing)

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



YQ



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